

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-29 (Cancelled).

30. (Currently Amended) An isolated polynucleotide which encodes a kin17 protein selected from the group consisting of SEQ ID NO:1; ~~comprises a nucleotide sequence selected from the group consisting of a nucleotide sequence which encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26;~~ a nucleotide sequence which encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 162 to 201 are deleted in SEQ ID NO:26; a nucleotide sequence which encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 55 to 235 are deleted in SEQ ID NO:26; and a nucleotide sequence which encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 129 to 228 are deleted in SEQ ID NO:26.

Claim 31 (Cancelled).

32. (Previously Presented) The isolated polynucleotide of Claim 30, wherein the nucleotide sequence encodes a human kin17 protein which comprises ~~[[an]]~~ the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 162 to 201 are deleted in SEQ ID NO:26.

33. (Previously Presented) The isolated polynucleotide of Claim 30, wherein the nucleotide sequence encodes a human kin17 protein which comprises ~~[[an]]~~ the amino acid

sequence in SEQ ID NO:26 with the exception that amino acids 55 to 235 are deleted in SEQ ID NO:26.

34. (Currently Amended) The isolated polynucleotide of Claim 30, wherein the nucleotide sequence encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 129 to 228 are deleted in SEQ ID NO:26 and comprises SEQ ID NO:3.

35. (Previously Presented) A vector comprising the isolated polynucleotide of Claim 31.

36. (Previously Presented) A vector comprising the isolated polynucleotide of Claim 32.

37. (Previously Presented) A vector comprising the isolated polynucleotide of Claim 33.

38. (Previously Presented) A vector comprising the isolated polynucleotide of Claim 34.

39. (Currently Amended) A human cell comprising the isolated polynucleotide of Claim 31 in a vector, wherein the vector is pCMVkin17 Δ HR.

Claims 40-42 (Cancelled)

43. (Withdrawn) A method for detecting a human kin17 DNA or RNA sequence in a sample, comprising hybridizing the sample with the isolated polynucleotide of Claim 30; and detecting the presence of a hybrid formed between the sample and the isolated polynucleotide.

44. (Withdrawn) The method of Claim 43, wherein prior to hybridizing the sample with the isolated polynucleotide, the method further comprises extracting the DNA or RNA from the sample.

45. (Withdrawn) The method of Claim 43, wherein prior to hybridizing the sample with the isolated polynucleotide, the method further comprises amplifying the DNA or RNA sequence with a pair of primers selected from the group consisting of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, and SEQ ID NO:33.

46. (Withdrawn) The method of Claim 45, wherein the pair of primers is SEQ ID NO:16 and SEQ ID NO:17.

47. (Withdrawn) The method of Claim 43, wherein human kin17 RNA is detected and wherein prior to hybridizing the sample with the isolated polynucleotide, the method further comprises preparing a complementary DNA copy of the RNA by reverse transcription.

48. (Withdrawn) The method of Claim 47, wherein after the complementary DNA copy is prepared and prior to hybridizing with the isolated polynucleotide, the method further comprises amplifying the complementary DNA copy with a pair of primers selected from the group consisting of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, and SEQ ID NO:21.

49. (Withdrawn) The method of Claim 48, wherein the pair of primers is selected from the group consisting of SEQ ID NOS:5 and 12; SEQ ID NOS:18 and 19; and SEQ ID NOS:7 and 16.

50. (Withdrawn) The method of Claim 43, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 and comprises the nucleotide sequence in SEQ ID NO:1.

51. (Withdrawn) The method of Claim 43, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 162 to 201 are deleted in SEQ ID NO:26.

52. (Withdrawn) The method of Claim 43, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 55 to 235 are deleted in SEQ ID NO:26.

53. (Withdrawn) The method of Claim 43, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 129 to 228 are deleted in SEQ ID NO:26 and comprises SEQ ID NO:3.

54. (Withdrawn) A method of inhibiting the proliferation of a mammalian cell, comprising introducing the isolated polynucleotide of Claim 30 into the cell to express a protein encoded by the isolated polynucleotide in the cell.

55. (Withdrawn) The method of Claim 54, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 and comprises the nucleotide sequence in SEQ ID NO:1.

56. (Withdrawn) The method of Claim 54, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 162 to 201 are deleted in SEQ ID NO:26.

57. (Withdrawn) The method of Claim 54, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 with the exception that amino acids 55 to 235 are deleted in SEQ ID NO:26.

58. (Withdrawn) The method of Claim 54, wherein the isolated polynucleotide encodes a human kin17 protein which comprises the amino acid sequence in SEQ ID NO:26 wherein amino acids 129 to 228 are deleted in SEQ ID NO:26 and comprises SEQ ID NO:3.

59. (Currently Amended) An isolated polynucleotide ~~selected from the group consisting of a nucleotide sequence which encodes a mouse kin17 protein which comprises the amino acid sequence in SEQ ID NO:25, selected from the group consisting of a~~ nucleotide sequence which encodes a mouse kin17 protein which comprises the amino acid sequence in SEQ ID NO:25 with the exception that amino acids 162 to 201 are deleted in SEQ ID NO:25, a nucleotide sequence which encodes a mouse kin17 protein which comprises the amino acid sequence in SEQ ID NO:25 with the exception that amino acids 55 to 235 are deleted in SEQ ID NO:25, and a nucleotide sequence which encodes a mouse kin17 protein and which comprises the amino acid sequence in SEQ ID NO:25 with the exception that amino acids 129 to 228 are deleted in SEQ ID NO:25.

60. (Currently Amended) The isolated polynucleotide of Claim 59, wherein the nucleotide sequence encodes a mouse kin17 protein which comprises the amino acid sequence in SEQ ID NO:25 wherein amino acids 129 to 228 are deleted in SEQ ID NO:25.

61. (Previously Presented) The isolated polynucleotide of Claim 60, which comprises SEQ ID NO:2.

62. (Previously Presented) A vector comprising the isolated polynucleotide of Claim 60.

63. (Previously Presented) A vector comprising the isolated polynucleotide of Claim 61.

Claims 64-65 (Cancelled).

66. (Withdrawn) A method for detecting a mouse kin17 DNA or RNA sequence in a sample, comprising hybridizing the sample with the isolated polynucleotide of Claim 59; and detecting the presence of a hybrid formed between the sample and the isolated polynucleotide.

67. (Withdrawn) The method of Claim 66, wherein prior to hybridizing the sample with the isolated polynucleotide, the method further comprises extracting the DNA or RNA from the sample.

68. (Withdrawn) The method of Claim 66, wherein prior to hybridizing the sample with the isolated polynucleotide, the method further comprises amplifying the DNA or RNA sequence with a pair of primers selected from the group consisting of SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO:32 and SEQ ID NO:34.

69. (Withdrawn) The method of Claim 68, wherein the pair of primers is selected from the group consisting of SEQ ID NOS:29 and 30; SEQ ID NOS:31 and 32; and SEQ ID NOS:16 and 17.

70. (Withdrawn) The method of Claim 66, wherein mouse kin17 RNA is detected and wherein prior to hybridizing the sample with the isolated polynucleotide, the method further comprises preparing a complementary DNA copy of the RNA by reverse transcription.

71. (Withdrawn) The method of Claim 70, wherein after the complementary DNA copy is prepared and prior to hybridizing with the isolated polynucleotide, the method further comprises amplifying the complementary DNA copy with a pair of primers selected from the group consisting of SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, and SEQ ID NO:32.

72. (Withdrawn) The method of Claim 71, wherein the pair of primers is selected from the group consisting of SEQ ID NOS:29 and 30; SEQ ID NOS:31 and 32; and SEQ ID NOS:16 and 17.

73. (Withdrawn) The method of Claim 66, wherein the isolated polynucleotide comprises SEQ ID NO:2.

74. (Withdrawn) An isolated polynucleotide, which comprises one or more nucleotide sequences selected from the group consisting of SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:33, SEQ ID NO:34, a 1265 base pair fragment obtained by amplification of a kin17 nucleotide sequence with SEQ ID NO:18 and SEQ ID NO:19, and a 224 base pair fragment obtained by amplification of a kin17 nucleotide sequence with SEQ ID NO:16 and SEQ ID NO:7.

75. (Withdrawn) The isolated polynucleotide of Claim 74, which comprises SEQ ID NO:4.

76. (Withdrawn) A method of detecting a human or mouse kin17 nucleotide sequence in a sample, comprising amplifying the nucleotide sequence with at least two nucleotide selected from the group consisting of SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:33, SEQ ID NO:34, a 1265 base pair fragment obtained by amplification of a kin17 nucleotide sequence with SEQ ID NO:18 and SEQ ID NO:19, and a 224 base pair fragment obtained by amplification of a kin17 nucleotide sequence with SEQ ID NO:16 and SEQ ID NO:7; and detecting the presence of a an amplification product, which is indicative of the presence of a human or mouse kin17 nucleotide sequence in the sample.

77. (Withdrawn) The method of Claim 76, wherein the nucleotide sequence is amplified with two nucleotide sequences selected from the group consisting of SEQ ID NOS:5 and 12; SEQ ID NOS:18 and 19; and SEQ ID NOS:7 and 16.

78. (Withdrawn) The method of Claim 76, wherein the nucleotide sequence is amplified with SEQ ID NO:16 and SEQ ID NO:17.

Claim 79 (Cancelled).